IN THE CLAIMS:

Please note that all pending claims are shown here in clean form for clarity. A marked up version of the claims amendments is attached.

Please cancel claim 1, without prejudice or disclaimer.

Please amend the remaining claims as follows:

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26. (Amended) A transgenic mammalian farm animal having a genome, the genome comprising a recombinant nucleic acid encoding a polymeric immunoglobulin receptor (pIgR) protein, wherein said protein is capable of transporting a polymeric immunoglobulin protein across the basolateral side of an epithelial cell's apical side, resulting in over-expression of the polymeric immunoglobulin protein on the epithelial cell's apical side in comparison to another immunoglobulin protein located on the epithelial cell's basolateral side.

27. (Twice Amended) The transgenic mammalian farm animal of claim 26, wherein the polymeric immunoglobulin protein is selected from the group consisting of IgM and IgA.

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28. (Amended) The transgenic mammalian farm animal of claim 26, wherein the immunoglobulin protein located on the epithelial cell's basolateral side is IgG.

29. (Amended) The transgenic mammalian farm animal of claim 26, wherein said transgenic mammalian farm animal over-expresses said pIgR protein at least 10-fold higher than the expression of the pIgR protein in the wild-type of said mammalian farm animal.

30. (Amended) A method of making the transgenic mammalian farm animal of claim 26, said method comprising:

producing a DNA construct comprising a nucleic acid encoding a pIgR protein operably linked to a

promoter capable of driving expression of said pIgR protein in a mammary gland epithelial cell; introducing said DNA construct into fertilized eggs; and

implanting the fertilized eggs comprising said DNA construct into a pseudopregnant female mammalian farm animal, thereby producing the transgenic mammalian farm animal according to claim 26.

31. (Amended) The method according to claim 30, wherein said promoter capable of driving expression of said pIgR protein in a mammary gland epithelial cell is a casein promoter.

32. (Amended) A method of collecting an immunoglobulin from the transgenic mammalian farm animal of claim 26, comprising:

providing the transgenic mammalian farm animal from claim 26, whose genome comprises a recombinant nucleic acid encoding a polymeric immunoglobulin receptor (pIgR) protein, which said protein is capable of transporting a polymeric immunoglobulin protein across the basolateral side of an epithelial cell to the epithelial cell's apical side, resulting in over-expression of the polymeric immunoglobulin protein on the epithelial cell's apical side compared to another immunoglobulin protein located on the epithelial cell's basolateral side; and

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collecting milk comprising said polymeric immunoglobulin protein from the mammary gland of said transgenic mammalian farm animal.

33. The method according to claim 32, further comprising isolating said immunoglobulin protein from the milk.

34. (Previously Amended) The method according to claim 32, wherein collecting milk comprising said immunoglobulin protein comprises collecting milk comprising either IgM or IgA.

35. (Amended) The method according to claim 31, comprising administering a protein capable

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of enhancing the expression of pIgR in the transgenic mammalian farm animal prior to collecting milk from the mammary gland, the protein selected from the group consisting of interferon-γ, interleukin-1, interleukin-4, and tumor necrosis factor-χ.

36. (Amended) The method according to claim 31, comprising administering an antigen to said transgenic mammalian farm animal prior to collecting the milk from the mammary gland.

Please add new claim 37.

37. (New) A method for raising the concentration of a first class of immunoglobulin relative to at least a second class of immunoglobulin in a mammary gland of non-human mammalian farm animal or progeny thereof said method comprising:

producing a transgenic mammalian farm animal according to claim 26.